

CLAIMS

1. A communications system comprising a first duplexing technique to enable communication between a first base station and a first plurality of terminals, a second duplexing technique to enable communication between a second base station and a second plurality of terminals, and frequency allocation means arranged to allocate at least a portion of a frequency band allocated to the first duplexing technique to a terminal so as to enable the terminal to operate in accordance with the second duplexing technique within the frequency band allocated to the first duplexing technique.
2. A system as claimed in Claim 1, wherein the first duplexing scheme is a Frequency Division Duplex (FDD) technique.
3. A system as claimed in Claim 1, wherein the second duplexing scheme is a Time Division Duplex (TDD) technique.
4. A system as claimed in Claim 1, wherein a first multiple access scheme is associated with the first duplexing technique.
5. A system as claimed in Claim 1, wherein a second multiple access scheme is associated with the second duplexing technique.
6. A system as claimed in Claim 4, wherein the first multiple access scheme is one of Code Division Multiple Access (CDMA), Time Division Multiple Access (TDMA), Space Division Multiple Access (SDMA) or Frequency Division Multiple Access (FDMA).

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7. A system as claimed in Claim 5, wherein the second multiple access scheme is one of Code Division Multiple Access (CDMA), Time Division Multiple Access (TDMA), Space Division Multiple Access (SDMA) or
5 Frequency Division Multiple Access (FDMA).
8. A system as claimed in Claim 3, wherein the at least a portion of the frequency allocation of the first duplexing technique is used to transmit downlink traffic during substantially all time slots associated with the second
10 duplexing technique.
9. A system as claimed in Claim 1, wherein the terminal operating in accordance with the second duplexing technique within the band of frequencies allocated to the first duplexing technique is arranged to transmit
15 delay-tolerant data.
10. A system as claimed in Claim 1, wherein the terminal operating in accordance with the second duplexing technique in the band of frequencies allocated to the first duplexing technique is arranged to receive delay-tolerant
20 data.
11. A system as claimed in Claim 9 or Claim 10, wherein the delay-tolerant data is packet data.
- 25 12. A system as claimed in Claim 2, wherein the frequency allocation means is arranged to measure a first carrier-to-interference ratio of a band of

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uplink frequencies and a second carrier-to-interference ratio of a band of downlink frequencies.

13. A system as claimed in Claim 12, wherein the frequency allocation
5 means further comprises a comparator for comparing the first and second carrier-to-interference ratios, the frequency allocation means being arranged to select an uplink band of frequencies or a downlink band of frequencies in response to the comparator.

10 14. A system as claimed in Claim 12, wherein the frequency allocation means employs a dynamic channel allocation algorithm in order to measure the first carrier-to-interference ratio and the second carrier-to-interference ratio.

15 15. A system as claimed in Claim 7, wherein the second multiple access scheme has a guard time, the terminal being arranged to use any capacity available in the band of frequencies of the first duplexing technique during the guard time.

20 16. A system as claimed in Claim 1, wherein the second base station is located between about 200 and 500m from the first base station.

17. A system as claimed in Claim 1, wherein the second plurality of terminals include the terminal.

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18. A system as claimed in Claim 1, wherein the terminal is a new terminal previously unaffiliated to the second base station.

19. A method of improving capacity in a communications system comprising a first duplexing technique to enable communication between a first base station and a first plurality of terminals, a second duplexing
5 technique to enable communication between a second base station and a second plurality of terminals, the method comprising the steps of:

allocating at least a portion of a frequency band allocated to the first duplexing technique to a terminal, and

re-tuning the terminal so as to enable the terminal to operate in
10 accordance with the second duplexing technique within the frequency band allocated to the first duplexing technique.

20. A terminal for use in a system comprising a first duplexing technique to enable communication between a first base station and a first plurality of
15 terminals, a second duplexing technique to enable communication between a second base station and a second plurality of terminals, the terminal being arranged to receive an allocation of at least a portion of a frequency band allocated to the first duplexing technique and to operate in accordance with the second duplexing technique within the frequency band allocated to the
20 first duplexing technique.

21. A base station for use in a system comprising a first duplexing technique to enable communication between another base station and a first plurality of terminals, the base station supporting a second duplexing
25 technique for communications with a second plurality of terminals, and being arranged to allocate at least a portion of a frequency band allocated to the first duplexing technique to a terminal so as to enable the terminal to operate

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in accordance with the second duplexing technique within the frequency band allocated to the first duplexing technique.

22. A base station as claimed in Claim 22, further comprising frequency
5 allocation means for allocating the at least a portion of the frequency band
allocated to the first duplexing technique.

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